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34399	7590	08/22/2006	EXAMINER	
GARLICK HARRISON & MARKISON P.O. BOX 160727 AUSTIN, TX 78716-0727			BRADLEY, MATTHEW A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Response to Amendment

This Office Action has been issued in response to amendment filed 30 May 2006. Applicant's arguments have been carefully and fully considered but they are not persuasive. Accordingly, this action has been made FINAL.

Claim Status

Claims 1-20 remain pending and are ready for examination.

Claim Objections

The claim objections set forth in the Office Action dated 24 January 2006 have been withdrawn in light of the instant amendment.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102 (e) as being anticipated by Chrisop et al (U.S. Patent Application Publication 2003/ 0043638), hereinafter referred to as Chrisop.

As per independent claim 1, Chrisop teach,

- determining mode of operation of the multiple function integrated circuit;
(Paragraph 0023) *The Examiner notes that the system allocates RAM in response to prompts that correspond to a selected operation within the system.*
- identifying at least one active module of a plurality of modules of the multiple function integrated circuit requiring a buffer based on the mode of operation; (Paragraph 0023) *The Examiner notes that as discussed supra, the system allocates memory for a specific device within the multifunction peripheral device. Accordingly, the system of Chrisop identifies an active module from the multifunction peripheral device that requires memory to operate.*
- determining buffer requirements for the at least one active module; and
(Paragraph 0029)
- allocating memory space of the shared memory for the buffer to be used by the at least one active module (Paragraph 0025).

As per dependent claim 2, Chrisop teach, wherein the at least one active module comprises at least two of: a processing unit; universal serial bus (USB) device; digital to analog converter (DAC); and analog to digital converter (ADC) (Paragraph 0029). *The Examiner notes that, for example, the fax machine can be the device selected as the active module. This being the case, the fax machine contains a processing unit inside of it in addition to both a digital to analog converter that converts documents before*

sending over an analog communication medium as well as an analog to digital converter that converts incoming analog transmissions to digital documents. The same applies for a scanner and or a copier but the DAC and ADC have different inputs and outputs and outputs.

As per dependent claim 3, Chrisop teach, wherein the mode of operation comprises at least one mode of operation selected from the group comprising: a digital audio player mode; a file storage device mode; a digital multimedia player mode; an extended memory device mode; a digital audio recorder mode; a digital multimedia recorder mode; and a personal data assistant (Paragraph 0023). *The Examiner notes that as taught by Chrisop, the "RAM is allocated to the temporary storage of documents." Accordingly the system of Chrisop is acting as a file storage device.*

As per dependent claim 4, Chrisop teach,

- changing the mode of operation of the multiple function integrated circuit to a second mode of operation; (Paragraph 0023) *The Examiner notes that the system allocates RAM in response to prompts that correspond to a selected operation within the system.*
- identifying at least one other active module of the plurality of modules requiring another buffer based on the second mode of operation; (Paragraph 0023) *The Examiner notes that as discussed supra, the system allocates memory for a specific device within the multifunction peripheral device. Accordingly, the system of Chrisop identifies an active module from the multifunction peripheral device that requires memory to*

operate. As taught in Paragraph 0029 of Chrisop, the system is able to allocate multiple areas of the RAM to different functions of the system.

- determining buffer requirements for the at least one other active module; and (Paragraph 0029)
- allocating memory space of the shared memory for the another buffer to be used by the at least one active module (Paragraph 0025).

As per dependent claim 5, Chrisop teach, wherein the at least one active module has digital memory access (DMA) to the shared memory (Paragraph 0023). *The Examiner notes that the MFP system of Christop has access to digital RAM.*

As per dependent claim 6, Chrisop teach, wherein the shared memory comprises on-chip random access memory (Paragraph 0029). *The Examiner notes that the RAM is shown as on-chip RAM in figure 1 item 106.*

As per independent claim 7, Chrisop teach,

- determining a first mode of operation of the multiple function integrated circuit; (Paragraph 0023) *The Examiner notes that the system allocates RAM in response to prompts that correspond to a selected operation within the system.*
- identifying at least one active module of a plurality of modules of the multiple function integrated circuit requiring a buffer based on the first mode of operation; (Paragraph 0023) *The Examiner notes that as discussed supra, the system allocates memory for a specific device within the multifunction peripheral device. Accordingly, the system of Chrisop*

identifies an active module from the multifunction peripheral device that requires memory to operate.

- determining buffer requirements for the at least one active module; and (Paragraph 0029)
- allocating memory space of the shared memory for a buffer to be used by the at least one active module (Paragraph 0025).

As per dependent claim 8, Chrisop teach, detecting activation of the multiple function integrated circuit; (Paragraph 0023).

As per dependent claim 9, Chrisop teach,

- detecting a change from the first mode of operation of the multiple function integrated circuit to a second mode of operation; (Paragraph 0023) *The Examiner notes that the system allocates RAM in response to prompts that correspond to a selected operation within the system.*
- identifying at least one active module of the plurality of modules of the multiple function integrated circuit requiring a buffer based on the second mode of operation; (Paragraph 0023) *The Examiner notes that as discussed supra, the system allocates memory for a specific device within the multifunction peripheral device. Accordingly, the system of Chrisop identifies an active module from the multifunction peripheral device that requires memory to operate. As taught in Paragraph 0029 of Chrisop, the system is able to allocate multiple areas of the RAM to different functions of the system.*

- determining buffer requirements for the at least one active module; and
(Paragraph 0029)
- allocating memory space of the shared memory for a buffer to be used by
the at least one active module module (Paragraph 0025).

As per dependent claim **10**, Chrisop teach, wherein the at least one active module comprises: a processing unit; universal serial bus (USB) device; digital to analog converter (DAC); and analog to digital converter (ADC) (Paragraph 0029). *The Examiner notes that, for example, the fax machine can be the device selected as the active module. This being the case, the fax machine contains a processing unit inside of it in addition to both a digital to analog converter that converts documents before sending over an analog communication medium as well as an analog to digital converter that converts incoming analog transmissions to digital documents. The same applies for a scanner and or a copier but the DAC and ADC have different inputs and outputs.*

As per dependent claim **11**, Chrisop teach, wherein the first mode of operation and second mode of operation comprise at least one mode of operation selected from: a digital audio player mode; a file storage device mode; a digital multimedia player mode; an extended memory device mode; a digital audio recorder mode; a digital multimedia recorder mode; and a personal data assistant (Paragraph 0023). *The Examiner notes that as taught by Chrisop, the "RAM is allocated to the temporary storage of documents." Accordingly the system of Chrisop is acting as a file storage device.*

As per dependent claim **12**, Chrisop teach, wherein the at least one active module has digital memory access (DMA) to the shared memory (Paragraph 0023).

The Examiner notes that the MFP system of Christop has access to digital RAM.

As per dependent claim **13**, Chrisop teach, wherein the shared memory comprises on-chip random access memory (Paragraph 0029). *The Examiner notes that the RAM is shown as on-chip RAM in figure 1 item 106.*

As per independent claim **14**, Chrisop teach,

- processing module; and (Figure 1 - allocator)
- memory operably coupled to the processing module, wherein at least portion of the memory functions as the shared memory and wherein the memory stores operational instructions that cause the processing module to: detect activation of the multiple function integrated circuit; (Figure 1 item 106)
- determine a first mode of operation of the multiple function integrated circuit; (Paragraph 0023) *The Examiner notes that the system allocates RAM in response to prompts that correspond to a selected operation within the system.*
- identify the at least one active modules of the multiple function integrated circuit requiring a buffer based on the first mode of operation; (Paragraph 0023) *The Examiner notes that as discussed supra, the system allocates memory for a specific device within the multifunction peripheral device.*

Accordingly, the system of Chrisop identifies an active module from the multifunction peripheral device that requires memory to operate.

- determine buffer requirements for the at least one identified active module; and (Paragraph 0029)
- allocate memory space within the RAM for a buffer to be used by the at least one active module. (Paragraph 0025).

As per dependent claim **15**, Chrisop teach,

- detect a change from the first mode of operation of the multiple function integrated circuit to a second mode of operation; (Paragraph 0023) *The Examiner notes that the system allocates RAM in response to prompts that correspond to a selected operation within the system.*
- identify at least one active module of the plurality of modules of the multiple function integrated circuit requiring a buffer based on the second mode of operation; (Paragraph 0023) *The Examiner notes that as discussed supra, the system allocates memory for a specific device within the multifunction peripheral device. Accordingly, the system of Chrisop identifies an active module from the multifunction peripheral device that requires memory to operate. As taught in Paragraph 0029 of Chrisop, the system is able to allocate multiple areas of the RAM to different functions of the system.*
- determine buffer requirements for the at least one active module; and (Paragraph 0029)

- allocate memory space of the shared memory for a buffer to be used by the at least one active module (Paragraph 0025).

As per dependent claim **16**, Chrisop teach, wherein the at least one active module further comprises at least one of: universal serial bus (USB) device; a flash memory device; an electronically programmable read only memory (EPROM) device; a multi-wire device; a hard drive device; digital to analog converter (DAC); and analog to digital converter (ADC) (Paragraph 0024). *The Examiner incorporates by reference herein the comments made supra with respect to claim 1 and the fax machine.*

As per dependent claim **17**, Chrisop teach, wherein the first mode of operation and second mode of operation comprise at least one mode of operation selected from: a digital audio player mode; a file storage device mode; a digital multimedia player mode; an extended memory device mode; a digital audio recorder mode; a digital multimedia recorder mode; and a personal data assistant (Paragraph 0023). *The Examiner notes that as taught by Chrisop, the "RAM is allocated to the temporary storage of documents." Accordingly the system of Chrisop is acting as a file storage device.*

As per dependent claim **18**, Chrisop teach, wherein the at least one active module has digital memory access (DMA) to the shared memory (Paragraph 0023). *The Examiner notes that the MFP system of Christop has access to digital RAM.*

As per dependent claim **19**, Chrisop teach, wherein the processing module determines the first mode of operation from initialization inputs to the multiple function integrated circuit, wherein the initialization inputs identify active modules operable

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coupled to the multiple function integrated circuit (Paragraph 0023-0025). *The Examiner incorporates by reference herein the comments made supra with respect to claim 1.*

As per dependent claim **20**, Chrisop teach, wherein the active modules include at least one of: universal serial bus (USB) device; a flash memory device; an electronically programmable read only memory (EPROM) device; a multi-wire device; a hard drive device; digital to analog converter (DAC); and analog to digital converter (ADC) (Paragraph 0024). *The Examiner incorporates by reference herein the comments made supra with respect to claim 1 and the fax machine.*

Response to Arguments

Applicant's arguments filed 30 May 2006 have been carefully and fully considered but they are not persuasive.

With respect to applicant's argument located within the last paragraph of the 8th page of the remarks (numbered as page 14) which recites:

*"With respect to Chrisop, the applicant respectfully submits at paragraph [0023] fails to teach, as is asserted by the examiner, **the allocation of shared memory within a multiple function integrated circuit**. Rather, Chrisop teaches that random access memory, RAM, may be adaptively allocated in a multi-function peripheral device. The applicant respectfully submits that within these multi-function peripheral devices, **RAM is a separate integrated circuit from the processor**." (emphasis added)*

The Examiner respectfully disagrees. The instant argument directed to claim 1 is not commensurate in scope with the claim language as the claim language clearly defines a method where insofar as it appears to be clear, applicant's arguments are directed to a structure. Further, the Examiner is unsure as to where the processor, as

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argued by applicant, is located within the limitations of claim 1. Additionally, there appears to be no claim limitation that restricts the memory to not be on a separate integrated circuit.

With respect to applicant's arguments located within the second, third and fourth full paragraphs of the 9th page of the remarks (numbered as page 15) which recite:

*"With respect to Claim 2, the applicant respectfully again submits that Chrispo fails to teach **that the active modules are within a single multiple function integrated circuit**. ... With respect to dependant Claim 3, the applicant respectfully submits that the mode of operation of the multiple function integrated circuit is selected from a group of modes of operation. The applicant again submits **that the RAM within Chrisop is not located within a multiple function integrated circuit**... ... With respect to independent Claim 7, the applicant respectfully submits that Chrisop for the same reasons described above again fails to teach **the allocation of Random Access Memory (RAM) within a multiple function integrated circuit**." (emphasis added)*

The Examiner respectfully disagrees. The instant arguments are not commensurate in scope with the claim language. The claim language clearly defines a method where, insofar as it appears to be clear, applicant's arguments are directed to a structure.

With respect to applicant's argument located within the first paragraph of the 9th page of the remarks (numbered as page 16) which recites:

"The applicant respectfully submits that these arguments are reiterated for independent Claims 14 and the dependent Claims 15 through 20 which depend from Claim 14."

The Examiner respectfully disagrees. The preamble of claim 14 states, 'dynamic buffer allocation of shared memory within a multiple function integrated circuit.' As simply and broadly claimed, the broadest most reasonable interpretation given to the preamble by the Examiner is simply memory being allocated for a buffer. Further,

applicant asserts that the instant invention differs from Chrisop, in that Chrisop has memory in a separate integrated circuit. However, claim 14 recites, 'a processing module; and memory operably coupled to the processing module.' Assuming *arguendo* that Chrisop did not teach a processing module and memory operable coupled thereto, there appears to be no claim limitation that restricts the memory to not be on a separate integrated circuit.

Further, in response to applicant's arguments, the recitation 'within' has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, ***the process steps or structural limitations are able to stand alone***. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Even assuming *arguendo* that the limitations were not able to stand alone, Chrisop teach a memory within a circuit that is operably coupled to a processor as shown at least in Figure 1.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

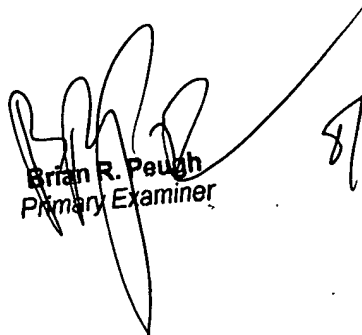
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Bradley whose telephone number is (571) 272-8575. The examiner can normally be reached on 6:30-3:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Brian R. Peugh
Primary Examiner
8/17/06